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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,222	09/14/2000	Charles Coulter	032326-080	8563

21839 7590 08/11/2004

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POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

ZAND, KAMBIZ

ART UNIT PAPER NUMBER

2132

DATE MAILED: 08/11/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/601,222

Applicant(s)

COULIER ET AL.

Examiner

Kambiz Zand

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2000.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
7) ☒ Claim(s) 3 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 09/14/2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3; Sept. 14, 2000.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1-7** have been examined.
2. Foreign Priority benefit claimed under Title 35, United States Code, § 119 have been acknowledged.
3. Foreign Priority benefit claimed under Title 35, United States Code, § 120 have been acknowledged.

Drawings

4. New formal drawings are required in this application because original drawings by the applicant were objected to by the Draftsperson under 37 CFR 1.84 or 1.152. Please see attached PTO-948. Correction is requested.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Example: "R1, R2 and R3" in fig. 1. Correction of all similar errors is requested.
6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Example "n=5" and "i=4" page 5, lines 26 and 27; "register R" page 5, line 28 respectively.
Corrections of all similar errors are requested.

7. The drawings are objected to because of minor informalities: The phrase “presentation du secret” shown in Fig.3.1a, 3.1b and 3.2a represent a French language phrase. Examiner suggests the translation of the phrase in English (i.e. “presentation of secret”) to be written out within the above figures. Correction is requested.

Information Disclosure Statement PTO-1449

8. The Information Disclosure Statement submitted by applicant on 09/14/2000 (paper number 3) has been considered. Please see attached PTO-1449.

Claim Objections

9. **Claims 1-7** are objected to because of the following informalities: typo error. Examiner suggests the following corrections:

Claim 1:

- Replacement of “the” (line 1) with “a” in the phrase “ the security”.
- Replacement of “all the rights” (line 8) with “ a number of rights” or “ a plurality of rights”.
- Replacement of “a” (line 9) with “the”.

Claim 2:

- Replacement of “the” (line 1) with “a” in the phrase “ the security”.
- Replacement of “the rights” (line 4) with “ a number of rights” or “ a plurality of rights”.
- Replacement of “the secrets” (line 6) with “ a number of secrets” or “ a plurality of secrets”.

Claim 3:

- Replace phrase « Claim » with phrase « claim » line 1.
- Replacement of “a” line 5 with “the” in the phrase “ a right”.
- Replacement of “the” (line 6, first occurrence) with “a” in the phrase “ the link”.
- Deleting the phrase “old” (line 6; line 7).
- Insert phrase “new” after the phrase “selected” (line 7).
- Replacement of “the” (line 7, second occurrence) with “a”.

Claim 4:

- Replace phrase « Claim » with phrase « claim » line 1.

Claim 5:

- Replace phrase « Claim » with phrase « claim » line 1.

Claim 6:

- Deleting the phrase “first” (line 6).

Claim 7 is objected to because of its dependency on objected independent claim 2.

Applicant's cooperation is requested in correcting any typo/grammatical errors of which applicant may become aware in the specification and the language of the claim.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

11. **Claims 1 and 4-7** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the "can each be.." phrase (line 7) makes the claims indefinite and unclear in that neither method steps nor interrelationship of method steps are set forth in these claims in order to achieve the desired results expressed in the "can each be..." phrase.

It is not clear "can each be" is an affirmative statement with respect to claim 1 or not that is the method steps are being executed (narrow claim language) or not (broader claim language).

12. **Claim 4** recites the limitation "the current directory (Ni)" in lines 3 and 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

13. **Claim 5** recites the limitation "the hierarchical axis" in line 21; "the highest hierarchical level" in line 22 of the claim. There is insufficient antecedent basis for this limitation in the claim.

14. **Claim 6** recites the limitation "the hierarchical axis" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim.

15. **Claim 7** recites the limitation "the function" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim, further more it is not clear what is the nature of a function and what this function represents. Examiner considers any processing of data in any format (storing, transmitting, receiving, etc. as a function) for the purpose of examination. Appropriate correction is requested.

Claim 7 recites the limitation "the current application" in line 4 of the claim.

There is insufficient antecedent basis for this limitation in the claim

Claim 7 recites the limitation "the required right" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the reference secret", lines 8,14, 19, 22, 26 and 28 of the claim.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. **Claims 1, 2 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Proust et al. (6,216,014 B1) in view of Jennings, III (6,134,631 A).

As per claim 1 Proust et al. (6,216,014 B1) teach a system of managing the security of data processing applications (**see col.3, lines 37-40 where a system of managing of applications by secure means is disclosed**), comprising: Directory files in which the data processing applications are stored (**see col.12, lines 46-67 where directory files such as master file or root directory and sub-directories stores application files such as loyalty application, payment applications**), said directory files being organized in an n-level tree (**see col.12, lines 46-52 where the directories are structured as three level hierarchical structure, that is corresponds to Applicant's n-level tree structure as a hierarchical structure**), the level 1 directory being the highest level (**see col.12, lines 49 where examiner considers the root directory or master file directory represent the highest level directory or level 1**

directory as a root directory where other subdirectories are under such directory); and

A number of security registers, each security register containing all rights or secrets which have been granted (**see col.13, lines 36-55 which relates to fig.5 flowchart, step 57 disclose having reference secret and a message authentication mode which relate to the related file and under a directory as disclosed above in col.12, lines 46-67; therefore rights that corresponds to message authentication mode that verify the access control policy to be used for the related file which itself relates to transmitted remote application; and on the other hand secrets such as reference secret related to corresponding file that itself relates to remote application; further col.14, lines 6-9 and 28-47 disclose data storage holds a secret reference, a security scheme and authentication mode and their storage in the data storage and how the pointer points to the location of the storage; examiner considers location of the storage where the identifier points to as corresponding to the security register that holds the message that contains reference secret or rights) but do not disclose that security registers or particular location of the memory that corresponds to a security registers is allocated to and it is under a single directory. However Jennings, III (6,134,631 A) teach an slave device that being treated as a hierarchical memory system that security registers or particular location of the memory that corresponds to a security registers is allocated to and it is under a single directory (**see col. 3,****

lines 29-33 where it disclose memory systems is hierarchical able to retrieve files within a stored directory). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Jennings, III (6,134,631 A) allocation of security register or a memory location under a single directory in Proust et al. (6,216,014 B1)'s hierarchical file management security system of processing applications in order to provide additional performance for demanding applications while adding little additional hardware by utilizing the slave device as hierarchical memory system on which to retrieve and store files that are stored under a directory.

As per claim 2 Proust et al. (6,216,014 B1) teach a method of managing the security of data processing applications, comprising the steps of:

(a) storing in security registers the rights granted according to given rules (**see col.13, lines 36-55 which relates to fig.5 flowchart, step 57 disclose having reference secret and a message authentication mode which relate to the related file and under a directory as disclosed above in col.12, lines 46-67; therefore rights that corresponds to message authentication mode that verify the access control policy to be used for the related file which itself relates to transmitted remote application are corresponding to given rules; and on the other hand secrets such as reference secret related to corresponding file that itself relates to remote application; further col.14, lines 6-9 and 28-47 disclose data storage holds a secret reference, a**

security scheme (given rule) and authentication mode (authentication rule) and their storage in the data storage and how the pointer points to the location of the storage; examiner considers location of the storage where the identifier points to as corresponding to the security register that holds the message that contains reference secret or rights).

(b) seeking the secrets presented in an n-level tree of directory files in which data processing applications are stored **(see col.12, lines 46-52 where the directories are structured as three level hierarchical structure, that is corresponds to Applicant's n-level tree structure as a hierarchical structure where examiner considers the root directory or master file directory represent the highest level directory or level 1 directory as a root directory where other subdirectories are under such directory; and see col.12, lines 46-67 where directory files such as master file or root directory and sub-directories stores application files such as loyalty application, payment applications); and**

(c) verifying the knowledge of one or more rights at the level of the data processing application **(see fig.6-9 where knowledge of one or more rights such as security scheme of application or security attributes or secret reference or authorization mode is verified in relation with one another; col.12, lines 58-61 where a right of access to Loyalty remote applications is verified by verifying access condition "private")** but do not disclose that security registers or particular location of the memory that corresponds to a

security registers is allocated to and it is under a single directory. However Jennings, III (6,134,631 A) teach an slave device that being treated as a hierarchical memory system that security registers or particular location of the memory that corresponds to a security registers is allocated to and it is under a single directory (**see col. 3, lines 29-33 where it disclose memory systems is hierarchical able to retrieve files within a stored directory and therefore any retrieval of files from any location that corresponds to security register in the memory is under a directory**). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Jennings, III (6,134,631 A) allocation of security register or a memory location under a single directory in Proust et al. (6,216,014 B1)'s hierarchical file management security system of processing applications in order to provide additional performance for demanding applications while adding little additional hardware by utilizing the slave device as hierarchical memory system on which to retrieve and store files that are stored under a directory.

As per claim 4 Proust et al. (6,216,014 B1) teach a method according to claim 2 wherein step (b) consists of applying the following rule: verifying that the secret presented is known in the directory (Ni) or in a directory at a higher level (**see col.8, lines 1-24 where upon authentication of access value such as "private access" or "shared access" that corresponds to verification of a secret presented in a master file or file under master file where the master**

file corresponds to root directory and files under it corresponds to sub-directories access is permitted and therefore upon authentication secret known in a subdirectory or files under the master files that corresponds to directory Ni or its higher directory that corresponds to master file which itself corresponds to higher directory is verified).

Allowable Subject Matter

18. **Claim 3** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. **Claims 5-7** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. U.S. Patent No. US (6,292,900 B1) teach multilevel security attribute passing methods, apparatus, and computer program products in a stream.

- b. U.S. Patent No. US (6,094,656 A) teach data exchange system comprising portable data processing units.
- c. U.S. Patent No. US (6,236,971 B1) teach system for controlling the distribution and use of digital works using digital tickets.
- d. U.S. Patent No. US (5,577,209 A) teach apparatus and method for providing multi-level security for communication among computers and terminals on a network.
- e. U.S. Patent No. US (5,845,068 A) teach multilevel security port methods, apparatus, and computer program products.
- f. U.S. Patent No. US (6,092,191 A) teach packet authentication and packet encryption/decryption scheme for security gateway.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Zand whose telephone number is (703) 306-4169. The examiner can normally be reached on Monday-Thursday (8:00-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see
<http://pair-direct.uspto.gov>. Should you have questions on access to the Private
PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197
(toll-free).


Kambiz Zand

08/07/04